DOCUMENT RESUME

ED 172 605 HE 011 327

AUTHOR Klitgaard, Robert E.; And Others

TITLE Merit and Admissions Policy: Case Studies from Pakistan. Discussion Paper Series No. 59 D.
INSTITUTION Harvard Univ., Cambridge, Mass. Kennedy School of Government.
SPONS AGENCY Ford Foundation, New York, N.Y.; World Bank, Washington, D. C.
PUB DATE Sep 78
NOTE 18p.; Paper to be published in "Comparative Education Review," June 1979
AVAILABLE FROM Public Policy Program, Kennedy School of Government, Harvard University, Cambridge, MA 02138

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Academic Achievement; *Admission Criteria; Case Studies; *College Admission; *College Entrance Examinations; *Competitive Selection; Foreign Countries; Graduate Surveys; Higher Education; *Predictive Validity; Predictor Variables; Selective Admission
IDENTIFIERS *Karachi University (Pakistan); Pakistan

ABSTRACT

Studies were conducted to determine whether measures of intellectual merit that are used as criteria for admission to the University of Karachi in Pakistan have predictive validity. The predictive validity of the intermediate examination score was studied with recent graduates of the pharmacy, medicine, and engineering schools. Additional studies of business school and arts and sciences graduates were also conducted. Regression analyses indicated that the current criterion of merit (intermediate score) explained little of a student's subsequent university performance. Even after including matriculate test scores and several independent variables in the analysis, the regressions had little predictive power. Possible explanations of the findings and a discussion of the pros and cons of merit-based admissions criteria are presented. (SW)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED172605

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Robert Klitzaard

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) AND THE ERIC SYSTEM CONTRACTORS."

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

HE 011 327

MERIT AND ADMISSIONS POLICY: CASE STUDIES FROM PAKISTAN

by ROBERT E. KLITGAARD, FATIMA AKBAR, SAFIA HAKEEM, RABIA RAFFI and TAZEEM-ur-REHMAN*

SEPTEMBER 1978

NUMBER 59 D

This research report summarizes some of the results of Choosing the Elite: A Study of Admissions Policies for Higher Education in Karachi (Karachi, Pakistan: Applied Economics Research Centre, 1977). The study was made possible by the financial support of the Ford Foundation and the World Bank. W. Eric Gustafson, Muneer A. Khan, Sadequa Dadabhoy, Ahmed Saeed Siddiqui, Shamsia Islam, Javed Iqbal, and John Simmons provided help at various stages of the project.

*Klitgaard is Associate Professor of Public Policy and Special Assistant to the President, Harvard University, Cambridge, MA., 02138, USA; the others are affiliated with the Applied Economics Research Centre, University of Karachi, Karachi 32, Pakistan.

(Forthcoming in Comparative Education Review, June 1979.)

1. INTRODUCTION

Rarely does a society have a conscious opportunity to choose its future elite. Hereditary advantages of property, culture, and genes are not distributed according to social choice. It is true that many governmental actions can affect the distribution of wealth, but seldom (outside of revolutionary societies) do they become a policy for installing a chosen few in privileged positions of income and influence.

There is, however, one well-accepted, conscious policy for choosing the elite. It is the selection of those who will receive higher education and professional training at public institutions. Most countries endorse admissions policies that select the "most qualified" students. This criterion often includes characteristics like intelligence, creativity, and motivation but does not explicitly count attributes like social class, skin colour, and province of origin. In practice, extraneous factors may enter, for good reasons or bad.[1] But throughout most of the world and in Pakistan, the official policy of admission to higher education--one might say, the ideology of admission--stresses merit. Given that not all may be trained, those trained should be the best; those with merit should be chosen as the next generation's elite.

This said, one quickly notes that the highly educated and the socioeconomic elite are not coextensive groups. A University degree is neither necessary nor sufficient for becoming rich and powerful.[2] Admissions policy is not a perfectly effective means of choosing the elite. But income and years of education are positively correlated: Doctors, engineers, and pharmacists do usually occupy high positions on the socioeconomic scale. Admissions policies have an important, if not exclusive, effect on the

---

[1] "Good reasons" might include admitting some less qualified students from disadvantaged backgrounds or from oppressed races. "Bad reasons" might include admitting a cousin of a politician for this reasons alone.

[2] Students of Pakistan's economic elite have demonstrated that many of the superrich had little formal education. See, for example, Gustav Papanek's work on the very rich in West Pakistan (in Pakistan's Development Experience II, Cambridge, Mass., Harvard University Press, 1970.)

allocation of human resources and, in turn, on the allocation of status and wealth in the society.

In most countries, it is the State that sets admissions policies; and in most countries, those policies must be very selective. Few developing countries, in particular, feature privately run Universities and professional schools. Selectivity is necessitated by the large number of candidates for a few educational slots. The demand for higher education and professional training is large and growing throughout the developing world.[3]

In Pakistan, too, Universities and professional schools are under governmental control. The State has the ultimate responsibility for deciding how many seats will be provided and to whom, although in practice the technicalities of admissions policies may be left to the discretion of the institutions involved. And admissions policies bind. Only about a tenth of the applicants of Karachi's Institute of Business Administration can be admitted. The corresponding fractions for other professional schools at the University of Karachi are almost as low. The faculties of arts and of science are swarmed with applicants for Bachelors' and Masters' degrees. Were it not for the deterrent effect of minimum required scores on the intermediate examinations, the demand for seats would be even greater.[4]

The social costs of admitting the wrong students are high. The government pays over 90 percent of the social cost of a student's higher education. The State thus has an important stake in whether a student completes his/her training or not. Failure rates are high: 26 percent in engineering school, for example, and 37 percent in medical school.[5]

Admissions policy has two dimensions: how many, and who. We confine ourselves to the second dimension. We shall not consider the optimal aggregate numbers of doctors, engineers, and M.Sc's to be trained annually; what we care about is, given those numbers, just who is selected and why.

How does this important public policy for selecting the elite actually work? What is the operational definition of "merit"? How valid is it? These questions are clearly important for policymaking, since selection of future

---

[3]For a summary of recent evidence, see Edgar O. Edwards, ed., Employment in Developing Nations, New York, Columbia University Press, 1974.

[4]At least a second-division intermediate result is required at most institutions, which precludes applications by the large numbers of graduates with third-divisions and passes.

[5]Based on 1974 data from the N.E.D. Engineering School and the Dow Medical School. More on this matter appears below.

professionals and intellectuals involves both economic efficiency and social equity. They are also important in a broader understanding of contemporary Pakistan: we may find clues for conjectures about the role of "merit" in economic and social life.

The Case for "Merit"

The affiliated institutions of the University of Karachi base admission on intellectual merit. The details are reported elsewhere[6]; only the broad features matter here:

- o A student's Intermediate score, based on a test taken after 12th grade, is the most important, and in some cases the sole, criterion for admission.
- o Occasionally, very superior performance on the 10th-grade Matriculate test will be considered as a positive factor
- o A few seats are reserved for students from far-flung areas, from scheduled castes, with athletic talent, or with a parent on the University faculty.
- o Only in the case of the Business School are interviews used and crude IQ tests employed.

The use of intellectual merit as the criterion for admission can be defended in various ways. To our knowledge, however, no explicit formulation of the reasons for this criterion has been made in Pakistan. Perhaps this criterion is simply obvious to all concerned parties. But in view of the importance of the topic, it is worthwhile to try to specify the obvious and to examine the conventional wisdom.

What we shall call the "strong argument" for the merit criterion depends on predictive validity. A test is said to have predictive validity if scores on it correctly anticipate future results of interest. Thus, Inter marks have predictive validity if they can predict who will do well and who will do badly at higher levels of education.

The strong argument proceeds as follows. First, it is important to anticipate who will do well in higher education. Failures are socially expensive, since the cost per year for a University student in Pakistan is almost 150 times

---

[6] Klitgaard, et al., Choosing the Elite..., pp. 3-11.

as high as the cost for a primary school student,[7] and over 90 percent of the costs of higher education are borne by the State.

Second, success in higher education is a positive function of "ability." Those with more ability have a lower probability of failure. There is also a positive side to the need for prediction: those with greater ability will reap more from the educational experience, and they will therefore be of more use to the nation after graduating.

Third, the operational criterion of merit--examination scores--are positively related to ability, and therefore examination scores can predict who will succeed and who will fail.

The strong argument may be supplemented by other considerations and may also be attacked in a number of grounds. For now, we note that the strong argument depends on the predictive validity of the criteria of merit. If examination marks are relatively poor predictors of University success, presumably the strong argument becomes hopelessly weak.

The Strategy and the Data

Do students' scores on Intermediate examination foretell their later University success? If Inter marks (I) are a predictor of University performance (P), we expect the correlation between them to be positive and statistically significant. As I goes up, we expect P to go up. More importantly, if I is to be the sole criterion for admission, we might think it reasonable to expect that variations in I should explain much of the variation observed in P.

We also tried to discover whether other possible indicators of intellectual merit were accurate predictors. When possible, we examined the effect on University performance of supposedly "extraneous" factors--such as sex, rural or urban residence, father's education, possession of a telephone, and primary school's medium of instruction.

---

[7] Estimates from the Ministry of Education estimates annual costs per student as follows:

	Developmental Expenditure	Recurring Expenditure	Total
Primary	38	100	138
Secondary	270	350	620
University	15,000	5000	20,000

Based on 1973-75 figures; Development of Education in Pakistan, Examination Reform and Research Sector, Curriculum Wing, Islamabad, September 1975, pp. 5, 25.

As will become evident, the data we analyze are not as extensive or as detailed as we would wish. Each data set was laboriously assembled, often from untabulated sheets, and each has its limitations, be it sample size or the number of variables on which information is available. However, the data we analyze are accurate, and in each case we are able to quantify the predictive validity of the current criteria of merit.

Pharmacy, Medicine, and Engineering

In these three professional programs, the Intermediate score is the sole admissions criterion for twelfth-grade applicants. How well does this score "predict" a student's eventual success?

To find out, we collected information on groups of recent graduates:

- For the pharmacy school, we obtained data for 110 graduates of the class of 1974 on final pharmacy marks (P), Inter marks (I), and matriculate marks (M).
- For the Dow medical school, we collected data on 89 students who appeared in the final professional M.B.B.S. examination 1973, held in February 1975. The information included medical score (Medic), I, M, sex, and residence in Karachi or not (K).[8]
- For the N.E.D. engineering school, we assembled data on 186 students who appeared in the B.E. examination 1972, held in 1973. The variables were engineering score (E), specialty (electrical, mechanical, or civil engineering), I, and M.[8]

We examined these data with regression analysis as our main statistical tool. Current admissions policies assume performance = f(I), where f is monotonically increasing. Since we had no a priori notion of the exact functional form (linear, logarithmic, quadratic, etc.) nor how other variables should be taken into account, we used regression as an exploratory tool. We began with a linear model, and then, after examining residual plots, we attempted what seemed to be more suitable specifications.

---

[8] For medical and engineering students who failed the examination--37 percent of the medical students and 26 percent of the engineering students--no marks are given, just a fail. We coded the failures as the maximum failing score, 49 marks for medicine and 45 marks for engineering.

Table 1 gives the results of simple linear regressions with Inter marks as the independent variable.[9]

Table 1

SIMPLE REGRESSIONS FOR PHARMACY, MEDICAL, AND ENGINEERING SCHOOLS

Score	Constant	Inter Coefficient	n	R^2	s.e. est.
P	322.9	0.31 (4.4)**	110	0.15	34.4
Medic	38.1	0.33 (4.2)**	99	0.16	7.05
E	37.0	0.39 (3.4)**	186	0.055	10.87

Note: Figures in parentheses are t-statistics
** indicates significance at the $\alpha = 0.01$ level

Residual plots for pharmacy and for medical school did not indicate curvilinearity, and alternative functional forms (logarithmic and quadratic, for pharmacy; logarithmic for medicine) did not perform better than the simple linear equation. For engineering school, however, scores of the plot in Figure 1 indicated a nonlinear relationship between E and I; in later regressions on E, we attempted to fit a quadratic function.

Several findings in Table 1 stand out. First, the regression coefficients on I are similar in the three equations. A student with a ten-point higher Inter score is predicted to have about a three- or four-point higher score in professional school. Second, the t-statistics are all statistically significantly significant beyond the $\alpha = 0.01$ level. That is, E and I are significantly correlated, as expected.

But, third, the percentage of variation explained by I is uniformly low. (This fact is especially true for engineering school, because of the nonlinearity just noted). Most of the variation in professional school performance could not be statistically explained by Intermediate scores.

We can put this surprising and important finding another way. Within the

[9]Note that the pharmacy equation defines both dependent and independent variables as 10 times the percentage score--these are the so-called "marks"--whereas, in the equations for engineering and medicine, percentage scores are used.

range of scores examined here, a student's intermediate score is not a good predictor of his or her later success in pharmacy school. For example, take a student with an intermediate score of 531. Our best guess of his subsequent pharmacy score is 490, but there is a 33 percent chance that the true score is ourside the rather large range of 455 to 524.[10] Notice that the standard deviation of P is 37.3; the standard error of our estimate of P_i knowing I_i is 34.4, which is a "reduction in our uncertainty" of less than 8 percent.

One might think that if an applicant's matric score (M) were also taken into account, one could make a better prediction of P. With this thought in mind, numerous multiple regressions were run, using residual analyses to help discover the "best fit." The coefficients of M (or M^2) were never statistically nificant at the 0.05 level, except for medical school. Moreover, the percentage of variation explained rose only a little. Even with intermediate and matric scores used simultaneously as predictors, very little of the variability in pharmacy scores can be explained.

Further analyses (reported in the monograph Choosing the Elite...) looked at different dependent variables (including a binary variable, pass or fail) and additional independent variables (including sex, residence, and father's education). None of these elaborations altered the basic finding: measures of merit currently used have little predictive validity.

The Business School

Our statistical explorations on a richer data set for the Institute of Business Administration followed the same strategy: using plots and residual analyses from numerous multiple regressions to give "merit" every chance to show its predictive power. The results are presented in detail in our monograph: basically, they showed that none of the independent variables reached statistical significance at conventional levels.

The Faculties of Arts and of Science

Our richest data set and most exhaustive work concerns admissions to the

---

[10] That is P$\pm$ standard error of the estimate is 490 $\pm$ 34.4 for I = 531. Our 95 percent confidence interval on P given I = 531 is 490 $\pm$ 68.8, or from 431.2 to 558.8.

University's Faculties of Arts and of Science. A stratified sample of 2786 students was selected from the class of 1971 in a remarkable data gathering effort by Rabia Raffi from the University's own records. Available variables included division obtained from the University in 1971 (i.e., first, second, third, pass), Inter division, matriculate division, sex, certain proxies for socioeconomic status (father's education, has telephone or not), and an indicator of command of English (medium of instruction in the student's primary school).

Important statistical problems emerge with the discrete dependent variable and some ordinal independent variables: space does not allow an elaboration of the problems or our solutions to them.[11] Neither shall we detail here our elaborate statistical explorations of these data. Table 2 provides a sort of bottom line: a qualitative summary of our "best" equations for different subject areas.

Table 2

PREDICTORS FOR DIFFERENT SUBJECT AREAS

		Predictors							
Subject	N	Int	Mat.	Sex.	Medium	F.Ed.	Tel.	R^2	F
All arts	1160	*	n.s.	*	*	*	n.s.	0.09	27.13
All science	423	n.s.	*	n.s.	n.s.	n.s.	*	0.02	5.22
Engineering	33	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	0.26	1.93
Education	66	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	0.04	2.02
Commerce	204	*	n.s.	n.s.	n.s.	n.s.	n.s.	0.07	15.15

Note: * signifies significant at the 0.05 level with the anticipated sign (including that girls do better than boys); n.s. signifies not significant. The Commerce equation used logarithms for all divisions.

The low percentages of variation explained by these regressions reinforce the results from the professional schools. Furthermore, not only does the current criterion of merit (Inter scores) statistically explain very little of a student's subsequent University performance; even after including matric

[11] See Choosing the Elite..., pp. 24-31.

division, father's education, sex, primary school medium, and possession of a telephone as independent variables, the regressions have little predictive power.

Explanations

There are several possible interpretations of these results. The most economical, perhaps, is that the "strong argument" is false: Inter and matric scores have poor predictive validity. To use such scores as the sole basis for choosing the elite might therefore seem unwarranted, even if one accepts the strong argument's premises about the need for predicting who will do well.

A second explanation focuses on the lack of reliability of both Inter and University marks. Marks are subject to several kinds of unreliability. One has to do with the differences between graders. Neither matric nor Inter exams are "objective" in the sense of multiple choice or true-false questions. Different graders mark different tests, and despite guidelines for grading test questions, no two graders mark exactly alike. As described in a forthcoming study, a sample of graders of the matric exams were randomly selected and asked to score exactly the same examinations. The correlations between the scores of different graders for the same examinations ranged from 0.2 to 0.9, with an average of about 0.7.

We suspect a similar lack of perfect reliability for Inter marks. University and professional school marks are probably somewhat more reliable, but not perfectly so. At least part of the reason for the lack of strong correlation between Inter and University marks stems from the unreliability, rather than the invalidity, of marks. However, this is scant comfort for the strong argument. Mathematically, the validity of a test cannot exceed the reliability squared; and what matters for the strong argument is how well Inter exams predict University performance. If the answer is "not well," it hardly matters what we call the reason.

A third possible explanation for our findings weakens the defeat of the strong argument. The multivariate analyses reported above were based only on students who actually did secure admission. The resulting restriction in the range of talent attenuates correlations.[12] Our best guess, based on a study

[12] See, for example, Robyn M. Dawes, "A Case Study of Graduate Admissions: Application of Three Principles of Human Decision Making," in William B. Fairley and Frederick Mosteller, eds., Statistics and Public Policy, Reading, Mass., Addison-Wesley, 1977, pp. 295-308.

of the Business School and the opinion of University professors, is that the regression lines we found wuld be accurate throughout the second-divisioners but would fall off in the middle 300's and below.[13] Therefore, we believe that the strong argument is weak for most of those who would even consider applying to the University.

Beyond These Data: The Pros and Cons of Merit

Marks may not have much predictive power, but disproving the strong argument is not sufficient to reject a merit-based admissions policy. Nor is the validity of the strong argument necessarily a convincing reason for accepting merit-based admissions. Marks have other functions in the educational system besides predicting who will do well in higher education, which may be important enough to justify using marks as the basis for admissions.

Creating Incentives

A point of departure is to note that marks provide an incentive to students at lower levels of education, in part because the marks are used as the criterion for admission to higher levels. Students therefore invest their energies in the procurement of marks, which in turn presumably increases the amount they learn. (Shortly we shall consider the possibility of adverse incentives generated by marks.) Apart from their possible predictive power, high school marks also have productive power, in terms of invoking certain behaviour at pre-University levels of education.

Presumably, eliminating marks as a criterion for University admissions would also reduce their power to motivate high school students. Many college teachers and educational officials have expressed to us the importance of this incentive. "If we got rid of marks," one said, "my students would do no work at all." Marks are said to motivate students for two reasons: first, to graduate from high school; and second for many but not all, to qualify for

---

[13] Some old data from the Institute of Business Administration shows that the probability of completing IBA successfully was higher for third-division B.Sc. graduates than for first-division B.Sc. graduates. (For B.A.-holders, the situation was reversed.) From the large data set on the University as a whole, it was found that the probability of securing a first-class degree given that one had a first-class Inter score was 0.13. For those having second-class Inter scores, the probability of a University first division was only slightly lower, 0.11. But for students with third-class Inter scores, the probability of securing a first-class University degree dropeed to only 0.03. (West Pakistan Institute of Management, "A Study of Significant Aspects of Success and Failure Among I.B.A. Candidates: 1962-66," processed, no date).

higher education. Even if marks could be shown to have no predictive validity, most teachers would probably oppose the abandonment of marks in admissions policy, because of the productive power of marks.

This productive power, however, is sometimes used as an argument against marks. Critics contend that marks provide adverse incentives outweighing the good ones: students invest too much time in the wrong kinds of learning activities. Michael Spence explains:

> From reasonably early ages, students are guided through courses of study designed to make them look like good bets (lotteries) to colleges. The expenditure of student effort, and the concomitant anxiety over a long period, may constitute a large diversion of human resources and energies away from relatively productive activities at earlier ages.[14]

Spence goes on to show, with plausible theoretical models, that students' overinvestment in marks-producing behaviour may distort the predictive or signalling power of marks, thus adding another overlay of inefficiency to the situation.

What are the facts about overinvestment in Pakistan? Matric and Inter examinations that determine marks are said to stress the wrong things and to make students do so, too. A 1956 report by the Board of Secondary Education in Lahore did not mince words:

> The dead weight of the examination has tended to curb the teachers' initiative, to stereotype the curriculum, to promote mechanical and lifeless methods of teaching, to discourage all spirit of experimentation and to place the stress on wrong or unimportant things in education.[15]

A·Haque concurs:

> Not only pupils but teachers are affected by the present system of examination... Examinations dictate curriculum instead of following it, and hamper the proper treatment of the subjects and sound method of teaching (sic).[16]

---

[14] Market Signalling: Informational Transfer in Hiring and Related Screening Devices, Cambridge, Mass., 1974, p. 80.

[15] Board of Secondary Education, Report on Secondary Education, Lahore, 1956, p. 19.

[16] "Examination System," Pakistan Education Review, No. 1 January 1970, p. 98.

Mohammad Basharat Ali believes that making marks a less important factor in admissions policy will have favourable results. His opinion is worth citing at length.

> The results of any public examination at the end of any stage like SSC, HSC, etc. should not be treated as 'passport' for admission to the next higher stage. There must be arrangements devised at any academic stage for selection/rejection of students. This gives the academic institutions opportunity to screen students the way they want. It also furnishes the students with the understanding that the result of any public examination is not all that they should have to do with but they may face other trials to get into the next academic programme. This will surely cut down mych of the unusually wrong and pernicious attitude sustained by the students towards final examinations.[17]

Expert opinions like these notwithstanding, hard evidence on issues of overinvestment is not plentiful. Much anecdotal evidence, indeed, indicated to us that students are underinvesting in study at all levels of education in Pakistan.

It is worth distinguishing the productive power of these examinations and this system of marks from that of an improved examination system. If the choice is between the current system and one that grants marks much less a role in the admissions process, one might favour the latter. The current system may have low predictive and low productive value. But a preferred alternative might be the installation of multiple-choice exams that stressed understanding and problem-solving ability, that were graded quickly to save the months of wasted time in the current system, and that were tightly supervised to alleviate cheating. Such tests might have higher predictive validity for University admissions purposes. But even if they did not, the point is that tests with good incentive effects might still be made a part of the admissions process.

"At Least Marks Are Objective"

Another defense of a marks-oriented admissions system is worth mentioning. To highlight the argument, suppose that marks have no predictive power or productive power. Even in such an unfavourable circumstances, marks-based admissions might be defended on the grounds that the alternatives are even worse. "At least marks are objective," the argument runs, "or are perceived to be

---

[17] "How Objective Are the Objective Tests," Pakistan Education Review, No. 4, October 1970, p. 35.

objective. Any policy that foregoes tests in favour of theoretically more valid predictors (and better incentive-creators) that are subjective--such as teachers' evaluations or interview ratings--would open the door to corruption. In Pakistan, influence would end up dictating admissions, and that outcome would be worse for society."

This argument has a certain conceptual attraction. If examination scores were merely random, they might be preferable to a subjective system that created a dynamic of overt corruption and "sifarish." The examination system is stable, in place, and accepted by all as a legitimate means of selection. It can be argued that any less rigid and formal system would be perceived as illegitimate and, in contemporary Pakistan, would in fact end up being illegitimate.[18]

Merit as Ideology

But the issue of perceived legitimacy raises broader questions. If "merit" as currently defined is not predictively valid, then might a merit-based system be illegitimate?

To oversimplify for the sake of clarifying the point, suppose that marks are not randomly distributed across social classes, ethnic groups, and geographical regions. Thus, marks are not correlated with later academic performance but are correlated with socioeconomic variables. (For example, upper-class, urban students may do better than lower-class or rural students; English- and Urdu-speakers may do better than Sindhi- or Baluchi-speakers.) Then admissions policies would discriminate against some groups, despite the fact that "merit" does not predict those who would do well at the University. On this view, we might reject the "legitimate," accepted admissions system because of its patent unfairness.[19]

---

[18]Merit criteria are also sometimes defended for their own sake. One may simply believe that it is right to reward those with the highest scores on matric and Inter exams--regardless of predictive validity or incentive effects.

[19]This rejection of a merit-based policy might hold even if marks were excellent predictors of University performance. The point is that the fairness of the admissions policy must be taken into account, along with predictive power, incentive effects, and (perhaps) the advantage of perceived legitimacy.

The argument could be pushed even further. Admissions policies based on the ideology of merit are merely an attempt to legitimize social inequality, the argument might run. In Pakistan, the social gaps are huge between bosses and subordinates, between white collar and blue, and even between various levels of the same organization's hierarchy. Such gaps can only be maintained by force or by custom--or by the general belief that inequalities of power and privilege are somehow the result of "merit." If it is shown that "merit" in fact has little predictive power, then the entire ideology of merit may be called into question.

Even in the United States, where educational research is abundant, these issues are not yet settled.[20] In Pakistan, there is very little information on the relationship of marks or educational achievement with later socioeconomic success, or on what traits schools produce or reward. There is little doubt that inequalities exist in Pakistan, but it is also true that most of the people at the very top of the power pyramid have little formal education.

Dimensions of the Policy Problem

This lack of information does not necessarily preclude a considered opinion. Since the issue of admissions policy is so important, it can be argued that calmly to await further research would be socially irresponsible. However, a lack of research does limit the scholar's role in forming that opinion. It is perhaps as much as one can do to recapitulate some of many dimensions of the problem.

- o Predictive validity of marks: Does the admissions system economize social costs of education by admitting those most likely to succeed?
- o Incentive effects of admissions policies: Are the effects on high school students positive or adverse?

[20] Samuel Bowles and Herbert Gintis argue that American analogues to "marks" do not predict post-schooling success but merely reinforce the prevailing hierarchy. Schooling in Capitalist America, New York, 1976, esp. pp. 103-7. However, David Wise shows that when a properly sophisticated model is employed, University academic success does independently predict later socioeconomic success; Zvi Griliches (and others) demonstrate how difficult the empirical estimation of educational returns becomes in the face of unmeasurable "ability" variables; numerous evaluations of educational programmes for students with low IQ scores have shown little impact on measurable learning. (Wise, "Personal Attributes, Job Performance, and Probability of Promotion," Econometrica, Vol. 43, No. 5-6, Sept.-Nov. 1975; Griliches, "Estimating the Returns to Schooling: Some Econometric Problems," Econometrica.)

- The legitimacy of marks: Are marks worth rewarding for their own sake,[21] or simply because of their aura of legitimacy in a country where corruption is rampant? Are marks the best we can do, even if they are highly imperfect?
- Fairness of admissions policies: Are some groups discriminated against by a marks-based system?
- The broader role of the ideology of merit: Are marks a facade for an unjust system of social stratification?

[21] In 1950, J.M. Stalnaker, director of a medical school testing project, noted that the MCAT test for admissions was not aimed so much at predicting performance as to assess the knowledge and intellectual skills considered to be desirable in a physician. "While I should be unwilling to discourage anyone from correlating any two variables, I can neither be impressed nor concerned when a low correlation is found between scores on a test in understanding modern society and grades in laboratory work in gross anatomy. I continue to favour selecting the men for the study of medicine who have some awareness of the social sciences." Stalnaker, "Tests for Medicine," Proceedings 1950 Invitational Conference on Testing Problems, Educational Testing Service, Princeton, 1951, p. 50.